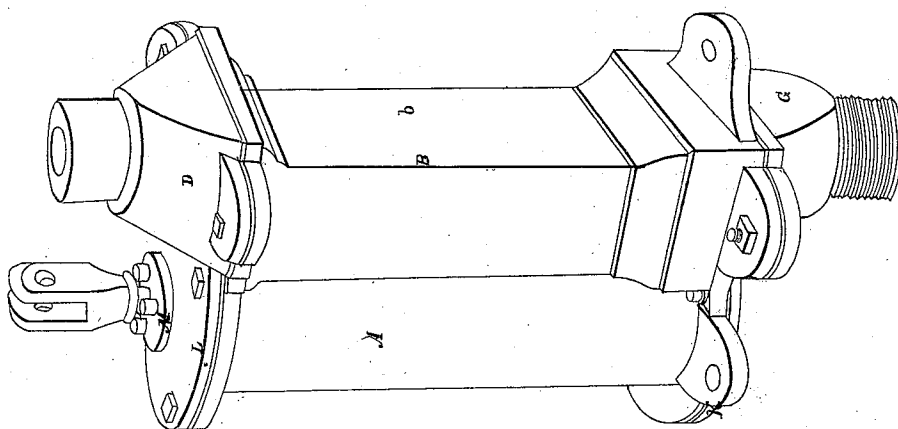
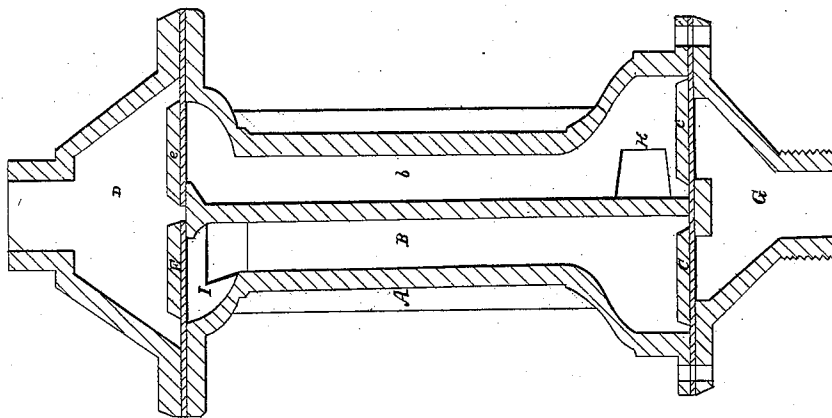


J. Stevens,
Double-Acting Pump,
N^o 523. *Patented Dec. 20, 1837.*



UNITED STATES PATENT OFFICE.

JONATHAN STEVENS, OF NEWARK, NEW JERSEY.

MODE OF CONSTRUCTION OF SUCTION AND FORCE PUMPS.

Specification of Letters Patent No. 523, dated December 20, 1837.

To all whom it may concern:

Be it known that I, JONATHAN STEVENS, of the city of Newark, State of New Jersey, have invented a new kind of Pump, of which the following is a description.

I have a cylinder A of 3 in. diameter and 9 in. long; on one side is 2 pipes B *b'* $1\frac{1}{4}$ by 1 in. inside on the bottom end; the side pipes are larger so that there is room for the bottom valves C *c* to lift inside of the side pipes. At the top end the side pipes are larger outside to make room for the top cup D to stand and less inside for the valves E *e* to lay on top. The top valves E *e* lifts inside the top cup, the top cup is connected to side pipes by a lug or flanch on each side which is bolted or screwed together, the bottom cup C has an even surface at the top side for the valves to lay on with two holes for the water to pass through. There is a passage or opening H between the cylinder and one side pipe at the bottom end and likewise there is a passage or opening I between the other side pipe and cylinder at top: the bottom end of cylinder has a head K screwed to

by a flanch the top end of cylinder has a head I screwed to by a flanch with a hole in the center and stuffing box M for the piston rod O to work through, the piston is solid, by drawing the piston up the water passes through one bottom valve and side pipe and follows the piston in the cylinder. By moving the piston down the water under the piston is forced up the side pipe and through the top valve into the top cup. It likewise draws the water through the other lower valve up the side pipe and follows the piston in the cylinder when the piston is drawn up it forces the water above through the top valve and the under side is filled again.

The invention claimed by me the said JONATHAN STEVENS and which I desire to secure by Letters Patent consists—

In the before described mode of arranging the pipes and valves.

Newark Nov. 20, 1837.

JONATHAN STEVENS.

Witnesses:

JOHN MASON,
S. F. LAWRENCE.